

CLAIMS

1. A machining device (D) such as a device associating a machining machine-tool (100) with a workpiece-holding device (200) having an actuation axis (A) of transverse rotation with respect to the downward axis (Z), CHARACTERIZED BY THE FACT THAT the workpiece-holding device (200) is constituted by a frame (210) supporting two bearings (210 and 230) for rotationally guiding according to the aforementioned transverse rotation axis (A), the structure formed by the frame (210) and the two bearings (220 and 230) being closed by the workpiece to be machined (300), the ends of which being fixed to the aforementioned bearings (310 and 220), the workpiece to be machined (300) being a long workpiece such as a workpiece including surfaces to be machined concentrated at its two ends AND BY THE FACT THAT the machine-tool (100) is of the type assuring the actuation of the two independent workpiece-holding slides (110 and 120) in a manner in which the machinings of the two ends of the workpiece (300) are carried out by a different slide.

2. A machining device (D) according to claim 1, CHARACTERIZED BY THE FACT THAT each bearing (220 and 230) includes and guides a rotating plate (221 and 231) having a motorized actuation means, the rotation of the two plates (221 and 231) being synchronized.

3. A machining device (D) according to claim 2, CHARACTERIZED BY THE FACT THAT each plate (220 and 230) has two supports (410, 420 and 510, 520) for receiving and maintaining in position the end of the workpiece (300).

4. A machining device (D) according to claim 1, CHARACTERIZED BY THE FACT THAT the frame (210) of the workpiece-holding device (200) is itself mounted mobile in rotation according to an axis (B) perpendicular to the axis (A) of rotation defined by the two bearings (220 and 230) that it supports.

5. A machining method for a long workpiece (300) such as a workpiece including surfaces to be machined concentrated at its two ends CHARACTERIZED IN THAT it includes carrying out the machining operations requiring up to four axes of movement by the means of a machine-tool (100)

assuring the actuation of two independent tool-holding slides (110 and 120) in a manner in which that the machinings of the two ends are carried out simultaneously and by a different slide, and subsequently carrying out the machining operations requiring a larger number of axes of movement by means of a special machine.

6. A method according to claim 5, CHARACTERIZED IN THAT it includes turning over the workpiece (300) according to its longitudinal axis (A) during the machining operations in the machine-tool (100) implementing two independent slides (110 and 120).

7. A method according to claim 5, CHARACTERIZED IN THAT it includes, before the machining operation, making contacts by a sensor, or equivalent device, on the workpiece (300) on surfaces designed to be symmetric in order to determine the plane of symmetry of the long workpiece (300) so that it can serve as a reference when carrying out the machinings.